REMARKS

Applicant requests favorable reconsideration and allowance of this application in view of the foregoing amendments and the following remarks.

Claims 1, 7-11, 13-21, 27-31, and 33-44 are pending in this application. Claims 2-6, 12, 22-26, and 32 have been cancelled without prejudice, and Claims 43 and 44 have been withdrawn from consideration. Claims 1, 10, 21, 30, 41, and 42 are the independent claims under examination.

Claims 1, 10, 21, 30, 41, and 42 have been amended. Applicant submits that support for the amendments can be found in the original disclosure at least, for example, in Figs. 6A and 6B and the corresponding description. Therefore, no new matter has been added.

Claims 1-4, 9, 21-24, 29, and 41 are rejected under 35.U.S.C. §103(a) as being unpatentable over Nakamura et al. ("A Unified Coding Method of Dithered Image and Text Data Using Micropatterns," IEEE, 1989) in view of U.S. Patent No. 5,592,592 (Shu). Claim 5-6, 8, 10-16, 19-20, 25-26, 28, 30-36, 39-40 and 42 are rejected under 35 U.S.C. §103(a) as being unpatentable over Nakamura et al. in view of Shu as applied to claims 1-4, 9, 21-24, 29 and 41 above, and further in view of U.S. Patent No. 6,477,276 (Inoue). Applicant respectfully traverses these rejections for the reasons discussed below.

As recited in independent Claim 1, the present invention includes, *inter alia*, the features of embedding additional information by using a threshold different from a threshold used when not embedding additional information in a partial area of an inputted image, periodically arranging the areas which use the threshold different from the threshold used when not embedding the additional information, and embedding the additional information by changing a combination of the horizontal period and the vertical period used when arranging the areas. With these

features, since the threshold used for quantization is changed and the combination of horizontal and vertical period is changed, additional information can be accurately extracted even when a pseudo gradation process is used. Applicant submit that the cited art fails to disclose or suggest at least these features.

Nakamura discloses a technique for embedding information in a dither image, and discloses embedding a code by changing a dot arrangement of a pattern representing the same density. On the other hand, Shu discloses a technique in which pixels that are the target of a halftone process are arranged in a staggered manner to prevent dot overlapping and to reduce ink usage. However, neither of those references disclose or suggest at least the features of embedding additional information by changing a threshold and by changing a combination of the horizontal period and the vertical period used when arranging areas. The other cited art also fails to disclose or suggest at least this combination of features. Accordingly, Applicant submits that Claim 1 is patentable over the art of record. Independent Claims 21 and 41 recite similar features and are believed patentable for similar reasons.

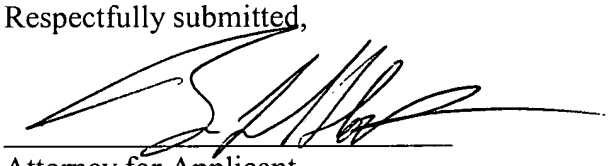
As recited in independent Claim 10, the present invention includes, among others, the features of classifying an image into plural classes, calculating a feature amount of each class, and extracting additional information based on a result of comparing sizes of feature amounts for various classes. Applicant submits that the cited art fails to disclose or suggest at least these features. Accordingly, Claim 10 is believed to be patentable. Independent Claims 30 and 42 recite similar features and are believed patentable for similar reasons.

The dependent claims are patentable for at least the same reasons as the independent claims, as well as for the additional features they recite.

In view of the foregoing, Applicant submits that this application is in condition for allowance. Favorable reconsideration, entry of this Amendment, withdrawal of the outstanding rejections, and an early Notice of Allowance are requested.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should be directed to our below-listed address.

Respectfully submitted,



Attorney for Applicant
Brian L. Klock
Registration No. 36,570

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200
BLK/lmj

DC_MAIN 224783v1